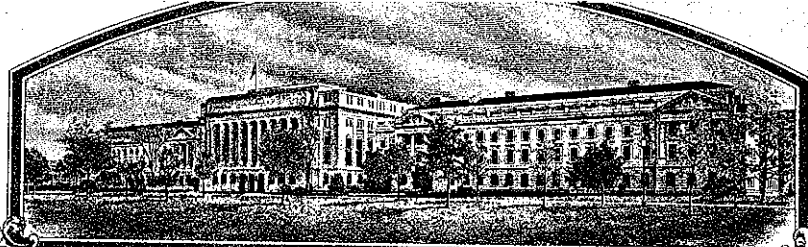


No.



8000013

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Asgrow Seed Company

Whereas, THERE HAS BEEN PRESENTED TO THE
Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *seventeen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXPOSE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT OF 1930, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

BROCCOLI

'Toro'



Attest:

Edward K. Lee
Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

In Testimony Whereof, I have hereunto set
my hand and caused the seal of the Plant
Variety Protection Office to be affixed
at the City of Washington
this 11th day of September in
the year of our Lord one thousand nine
hundred and eighty.

W. B. Bly
Secretary of Agriculture

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, POULTRY, GRAIN & SEED DIVISION

FORM APPROVED
OMB NO. 40-R3822

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: See Reverse.

No certificate for plant variety protection may be issued unless a completed application form has been received (5 U.S.C. 553).

1a. TEMPORARY DESIGNATION OF VARIETY XP97		1b. VARIETY NAME TORO		FOR OFFICIAL USE ONLY PV NUMBER 8000013	
2. KIND NAME Broccoli		3. GENUS AND SPECIES NAME Brassica Oleracea		FILING DATE 11-14-79	TIME 4:00 P.M.
4. FAMILY NAME (BOTANICAL) Cruciferae		5. DATE OF DETERMINATION April 8, 1971		FEE RECEIVED \$ 500.00 \$ 250.00	DATE 11-14-79 8/18/80
6. NAME OF APPLICANT(S) Asgrow Seed. Co.		7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) Kalamazoo, MI 49001		8. TELEPHONE AREA CODE AND NUMBER 616-385-6605	
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.) Corporation			10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION Delaware		11. DATE OF INCORPORATION March 22, 1968
12. NAME AND MAILING ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS: John A. Batcha, Asgrow Seed Co., Unit 9630-190-1, 7000 Portage Road, Kalamazoo, MI 49001					
13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:					
<input checked="" type="checkbox"/> 13A. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)					
<input checked="" type="checkbox"/> 13B. Exhibit B, Novelty Statement.					
<input checked="" type="checkbox"/> 13C. Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.)					
<input type="checkbox"/> 13D. Exhibit D, Additional Description of the Variety.					
14a. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See Section 83(a). (If "Yes," answer 14B and 14C below.) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO					
14b. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input type="checkbox"/> YES <input type="checkbox"/> NO			14c. IF "YES," TO 14B, HOW MANY GENERATIONS OF PRODUCTION BEYOND BREEDER SEED? <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED		
15a. DID THE APPLICANT(S) FILE FOR PROTECTION OF THIS VARIETY IN OTHER COUNTRIES? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (If "Yes," give name of countries and dates.)					
15b. HAVE RIGHTS BEEN GRANTED THIS VARIETY IN OTHER COUNTRIES? <input type="checkbox"/> YES <input type="checkbox"/> NO (If "Yes," give name of countries and dates.)					

16. DOES THE APPLICANT(S) AGREE TO THE PUBLICATION OF HIS/HER (THEIR) NAME(S) AND ADDRESS IN THE OFFICIAL JOURNAL? ☒ YES ☐ NO

17. The applicant(s) declare(s) that a viable sample of basic seed of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

October 31, 1979

(DATE)

October 31, 1979

(DATE)

John A. Batcha

(SIGNATURE OF APPLICANT)

John A. Batcha

(SIGNATURE OF APPLICANT)

INSTRUCTIONS

GENERAL: Send an original copy of the application and exhibits, at least 2,500 viable seeds, and \$500 fee (\$250 filing fee and \$250 examination fee) to U.S. Dept. of Agriculture, Agricultural Marketing Service, Livestock, Poultry, Grain and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, Beltsville, Maryland 20705. (See section 180.175 of the Regulations and Rules of Practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

ITEM

- 5 Give the date the applicant determined that he had a new variety based on (1) the definition in section 41(a) of the Act and (2) the date a decision was made to increase the seed.
- 13a Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4) evidence of uniformity and stability.
- 13b Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties: (1) identify these varieties and state all differences objectively; (2) attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.
- 13c Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.
- 13d Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe, such as, plant habit, plant color, disease resistance, etc.
- 14a If "YES" is specified (seed of this variety be sold by variety name only as a class of certified seed) the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled, his decision published, or the certificate has been issued. However, if the applicant specified "NO," he may change his choice. (See section 180.16 of the Regulations and Rules of Practice.)
- 15a See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.

EXHIBIT A

8000013

- January 16, 1967 - Single plant selections were made in a production seed field of Medium Late 145 located near King City California. Selections were kept separate and evaluations were later made of single plants individually.
- 1968 - Evaluations made in Salinas Valley of California.
- 1970 - Seed increase was completed
- 1971 - 1970 production was evaluated
- 1974 - Seed production for commercial evaluation and seed stock
- 1975 - 1974 production was evaluated.
- 1977 - Commercial trials
- 1978 - Commercial seed production planted
- 1979 - Commerical seed production harvested

TORO broccoli is uniform and stable. Stability and uniformity were established in 1975 when results of 1974 production were evaluated.

EXHIBIT B

8000013

Novelty Statement

To our knowledge the broccoli varieties most similar to TORO are Medium Late 145 and Medium Late 423. Characteristics which make TORO a different variety include but are not restricted to the following:

Medium Late 145 Comparison

Plant Height - TORO is approximately 2" shorter.
Maturity - TORO is earlier up to 12 days earlier.

Medium Late 423 Comparison

Plant Height - TORO is approximately 2" shorter.
Maturity - TORO is up to 7 days earlier.



Asgrow Seed Company
subsidiary of The Upjohn Company

Kalamazoo, Michigan 49001

July 22, 1980

Mr. Thaddeus E. Frey
Examiner, Plant Variety Protection Office
U.S. Department of Agriculture
National Agricultural Library Bldg.
Beltsville, MD 20705

Dear Mr. Frey:

Reference is made to your letter of April 23, 1980 concerning application 8000013 Broccoli Toro.

Toro broccoli has been produced at least four different times. Evaluations indicate the variety is uniform and stable.

Maturity differences have been documented in four different trials.

- Toro was the following number of days earlier than Medium Late 145
Spring 1977 California Salinas Valley 3
Spring 1978 California Salinas Valley 5
Spring 1978 California Salinas Valley 9
- Toro was 7 days earlier than Medium Late 423 in Santa Maria California trials in the spring of 1977.

Please contact me should you have additional questions concerning this matter.

Very truly yours,

John A. Batcha

mga

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

Asgrow Seed Company
TORO Broccoli

GRAIN DIVISION

December 4, 1972

HYATTSVILLE, MARYLAND 20782

OBJECTIVE DESCRIPTION OF VARIETY

8000013

Broccoli (*Brassica oleracea* var. *italica*)

1. REGION OF ADAPTATION: (Where best adapted in the U.S.A.)

- ☒ 1 = Northwest 2 = Northcentral 3 = Northeast
4 = Southeast 5 = Southwest

2. SEASON: (Main Crop)

- ☒ 1 = Late Fall-Early Winter 2 = Late Winter-Early Spring
3 = Late Spring-Early Summer 4 = Late Summer-Early Fall

3. MATURITY: (Days to 50% harvest):

☒ From Transplants:

☒ From Direct Seeding:

- 1 = Very early (<55) 2 = Early (55-70) 3 = Medium (70-85)
4 = Late (85-100) 5 = Very late (100+)

☒ 5 Harvesting period in days

4. PLANT HABIT:

- ☒ 1 = Low spreading 2 = Low compact 3 = Medium spreading
4 = Medium compact 5 = Tall spreading 6 = Tall compact

5. PLANT HEIGHT:

☒ 1 cm. from soil level to top of center, main head

☒ 2 cm. shorter than ☒ 4 1 = Spartan Early
2 = Waltham 29

☐ cm. taller than ☐ 3 = Pacifica
4 = Medium Late 145

Only comparison varieties are

Medium Late 145 & Medium Late 423 and XP97 has been shorter than both

6. LEAVES:

☒ 0 Total number per plant

☒ 8 cm. Average length at mid-point of plant (minus petiole)

☒ 9 cm. Average width at mid-point of plant

☐ Ratio - Length/Width 1 = (2:1) 2 = (3:1) 3 = (4:1) 4 = (5:1) 5 = (6:1)

Margins:

☒ 1 = Straight 2 = Wavy

Veins:

☒ 1 = Thin 2 = Thick

☒ 1 = Sessile 2 = Petiolate 2 = Sessile and petiolate

☒ 6 cm. Petiole length

8000013

ANTHOCYANIN COLORATION (Under ideal growing conditions):

(1 = Absent, 2 = Present)

- ☒ Leaf axils ☒ Leaf petioles
- ☒ Leaf veins ☒ Leaf blade ☒ Entire plant

INFLORESCENCE:

- ☒ Flower Bud Size: 1 = Small (Medium Late 145) 2 = Medium (Waltham 29)
3 = Large
- ☒ Flower Color: 1 = White-Cream 2 = Yellow
- ☒ Leaves in Central Head: 1 = None 2 = Few 3 = Many
- ☒ Number of marketable side sprouts after head is harvested:
1 = None 2 = Few 3 = Many 4 = Greatest part of yield
- ☒ 3 cm. Diameter center head ☒ 5 cm. Average diameter side heads
- ☒ 6 cm. Depth of center head ☒ 9 cm. Diameter of stem at base of head
- ☒ Center Head Compactness: 1 = Loose 2 = Medium 3 = Tight
- ☒ Center Head Color: 1 = Light Green 2 = Medium Green
3 = Dark Green 4 = Bluish Green 5 = Purple

9. DISEASE RESISTANCE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)
Specify race if known):

- | | |
|---|---|
| <input checked="" type="checkbox"/> Black spot | <input checked="" type="checkbox"/> Clubroot |
| <input checked="" type="checkbox"/> Phytophthora root rot | <input checked="" type="checkbox"/> White blister |
| <input checked="" type="checkbox"/> Black rot | <input checked="" type="checkbox"/> Bottom rot |
| <input checked="" type="checkbox"/> Cercospora leaf spot | <input checked="" type="checkbox"/> Downy mildew |
| <input checked="" type="checkbox"/> Powdery mildew | <input checked="" type="checkbox"/> Verticillium wilt |
| <input checked="" type="checkbox"/> Black leg | <input checked="" type="checkbox"/> Cauliflower mosaic |
| <input checked="" type="checkbox"/> Ring spot | <input checked="" type="checkbox"/> Turnip yellow mosaic |
| <input checked="" type="checkbox"/> Yellows | <input checked="" type="checkbox"/> Root knot |
| <input checked="" type="checkbox"/> Wire stem | <input checked="" type="checkbox"/> Other (specify) _____ |

OTHER RESISTANCES: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

- ☒ Hollow stem ☒ Internal tip burn ☒ Insects (specify) _____
- Other (specify) _____

10. INDICATE A VARIETY THAT MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER	VARIETY	CHARACTER	VARIETY
Maturity	Medium Late 423	Head size	Medium Late 145
Plant size	Medium Late 423	Head shape	Medium Late 423
Plant habit	Medium Late 145	Head color	Medium Late 145
Plant color	Medium Late 145	No. side shoots	Medium Late 145